

TRAINER MANUAL
Practical Exercise Module A_PE_3_ Placing and Mounting WAC

Level 0

<p>Objectives:</p>	<p>Participants gain skills in</p> <ol style="list-style-type: none"> 1. Placing and mounting of Window type Air- Conditioner (WAC) 2. Observation and application of measures for occupational health and safety and accident prevention regulations. 3. Observation and application of environmental protection and rational use of material resources and energy. 4. Planning and controlling structured work processes, controlling and evaluating work results. <ol style="list-style-type: none"> 4.1 Preparing workstation with consideration of the work task 4.2 Planning and defining work steps and procedures 4.3 Read and interpret written technical information related to the work task 4.4 Work based on technical drawings and required dimensional accuracy 4.5 Select and use appropriate equipment & tools 4.6 Demonstrate knowledge and skills for WAC unit installation 4.7 Learn how to connect the WAC correctly to the power grid 4.8 Demonstrate knowledge and skills for WAC unit start up and functional testing 4.9 Cleaning of installation site 4.10 Learn how to write a report about the operational conditions of the refrigerating system and advise the client on how to use the system 5. Maintenance and servicing of tools <ol style="list-style-type: none"> 5.1 Cleaning, maintaining and preserving tools
<p>Duration:</p>	<p>75 minutes</p>
<p>Material:</p>	<p>Whiteboard/Blackboard or handout of exercise description</p> <ol style="list-style-type: none"> a. A_PE3_HO Work description b. A_HO_Last minute risk assessment c. A_HO_Inst Manu Window AC EXAMPLE d. A_HO_Installation protocol Window AC EXAMPLE e. A_HO_Safe isolation Flowchart
<p>Tools & equipment:</p>	<ol style="list-style-type: none"> f. 8 x WAC g. 8 x marker pens h. 8 x steel measuring tapes i. 8 x Screw driver set j. 8 x Spirit level k. 8 x Fastening fixtures (to secure WAC in to frame) l. Refrigeration (thermal) insulation tape
<p>Workshop arrangements</p>	<p>Workshop is arranged for up to sixteen (16) participants. Provision of eight (8) work benches, eight (8) complete sets of tools.</p> <p>Sufficient workshop space</p>



Figure 1: Window type Air- Conditioner example (Source: Godrej)

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Summary – Session Overview				
TIME	CONTENT	OBJECTIVES	TRAINING MATERIAL	DESCRIPTION OF TRAINING SESSION AND TRAINER NOTES
15'	1. Participants briefing 2. General safety briefing	Participants: <ul style="list-style-type: none"> Understand the given work-task Are familiar with the required safety arrangements Are familiar with the local conditions 	<ul style="list-style-type: none"> A_PE3_HO Work description A_HO_Last minute risk assessment A_HO_Inst Manu Window AC EXAMPLE A_HO_Installation protocol Window AC EXAMPLE A_HO_Safe isolation Flowchart 	Plenary <ul style="list-style-type: none"> Trainer explains work task and executes safety briefing Trainees form team Trainees arrange for division of work Trainees obtain permit of work
60'	Install WAC in to existing frame in window as per work description Filling of check-list while executing work-steps: <ul style="list-style-type: none"> Obtain permit of work, execute risk assessment Undertake worksite preparation, tools, equipment and PPE check (having risk assessment in mind) Safeguard the workshop area and inform involved parties Place unpacked unit safely with its accessories on work table Verify and read the technical documentation 	Participants: <ul style="list-style-type: none"> Obtain knowledge of how to execute a risk assessment at installation site Learn how to get familiar with using PPE Obtain knowledge and skills to practically execute unit installation. Learn how to mark frame for drilling Learn how to drill holes for fixing screws Learn how to secure outer casing to frame 	Tools and equipment as specified above	Trainer observes work routine and gives instructions to participants if they have questions. Trainer evaluates work according to outlined criteria with the help of an assessment sheet (will be provided at a later date). <u>Group work of 2 participants at one workstation:</u> <ul style="list-style-type: none"> All authorisation was obtained Work area is safeguarded Appropriate PPE is selected in line with the job requirements Workplace arrangements are structured and in clean conditions. All necessary tools are in safe conditions and well arranged Work instructions technical plans/drawings are interpreted as per job requirements

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TIME	CONTENT	OBJECTIVES	TRAINING MATERIAL	DESCRIPTION OF TRAINING SESSION AND TRAINER NOTES
	<ul style="list-style-type: none"> • Remove grille and filter etc. • Remove cabinet-base tray locks • Pull out base tray/unit from the cabinet • Install cabinet inclined backward/outward slightly (4-6mm) • Drill 8 holes on wooden frame (6mm ø) • Fix outer cabinet firmly to wooden frame • If required, apply grease to bottom of base tray & channels • Slide base tray into outer cabinet with adequate care of all tubes • Fill thermal insulation between outer cabinet & wooden frame • Ensure proper and clean appearance of installed unit • Fit anti-theft locks if provided with the air-conditioner • Install the filter, grille & drain tray etc. to base tray from outside • Check provided power supply 	<ul style="list-style-type: none"> • Learn how to fit unit in to outer cabinet • Learn how to apply insulation between outer cabinet and wooden frame • Learn how to connect the WAC correctly to the power grid • Learn how to operate unit • Learn how to write a handing over report and execute client briefing 		<ul style="list-style-type: none"> • Installation requirements are verified in line with site conditions and the provided components • WAC is installed correctly and is fully operational • Workplace arrangements are structured and in clean conditions. • Rational use of material resources was maintained.

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TIME	CONTENT	OBJECTIVES	TRAINING MATERIAL	DESCRIPTION OF TRAINING SESSION AND TRAINER NOTES
	<ul style="list-style-type: none"> • Connect power cord to power point and switch-on unit • Set control panel as desired and start the air-conditioner • Permit air-conditioner to run for about 20-25 minutes • Prepare installation protocol • Demonstrate effective use/benefits, explain features 			
				<p><u>Competency must be assessed through:</u></p> <ul style="list-style-type: none"> • Direct observation • Demonstration • Questions related to required knowledge • Competency may be assessed in the workplace or in a simulated work place setting <p><u>Assessment requires evidence in form of:</u></p> <ul style="list-style-type: none"> • Conducted survey of site for installation of the copper tube • Conducted the relevant risk assessment • Ensured continuous OHS measures • WAC system is fitted and commissioned consistent with the approved OEM specifications • Ensured continuously organised and clean workplace condition • Verified client briefing
75 min	Total time			

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